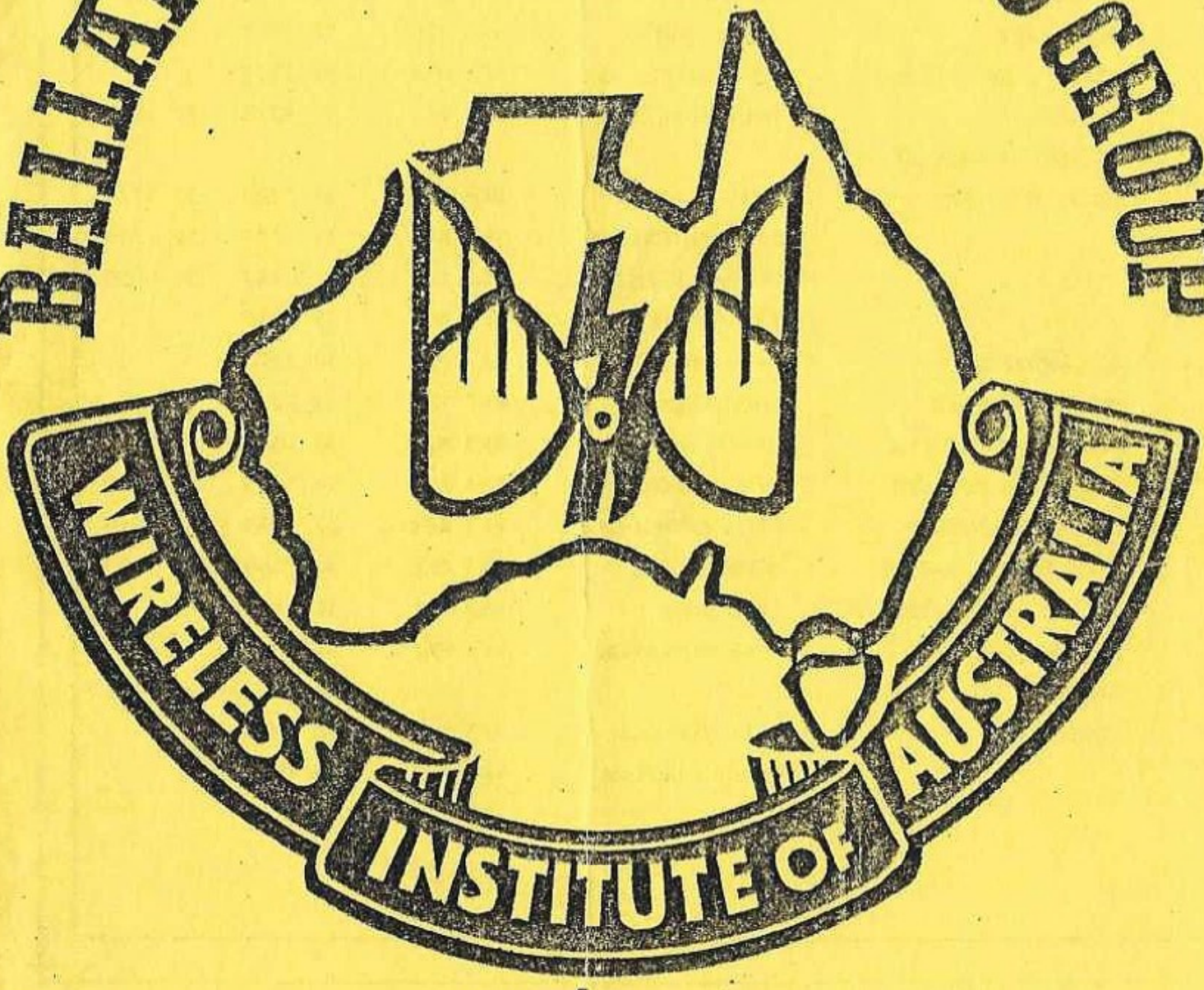
84/06 01

BARC NEWS

BALLARAT AMATEUR RADIO GROUP



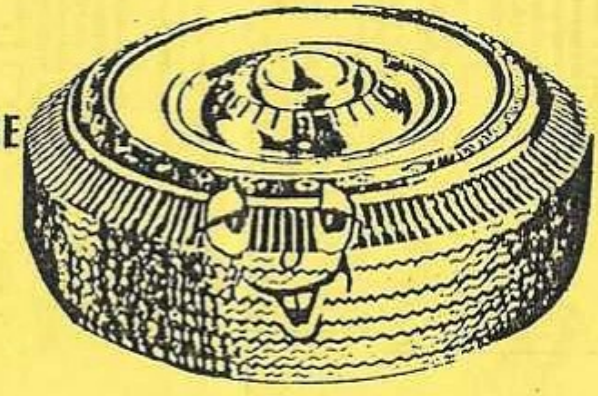
June '84

Monthly Newsletter of the Ballarat Amateur Radio Group

REGISTERED BY AUSTRALIA POST, PUBLICATION NO. VBH3397

84/06 02

THE big wheel



			Home	Bus.
PRESIDENT	MURRAY FELSTEAD	VK3 AAI	42 0447	31 5000
VICE-PRESIDENT	GEORGE FOWLER	VK3 DOK	32 6863	39 1954
SECRETARY	JIM WRIGHT	VK3 VZD	32 7563	
ASSIST. SECRETARY	HANK HILVERTS	VK3 NIA	39 3332	
TREASURER	DICK ANTOSIEWICZ	VK3 AEX	32 3273	32 1818
ASSIST. TREASURER				
TECH. OFFICERS	PHIL SEDDON	VK3 AQM	31 5220	31 3166
	DICK ANTOSIEWICZ	VK3 AEX	32 3273	32 1818
	MURRAY FELSTEAD	VK3 AAI	42 0447	31 5000
	IAN ROBINSON	VK3 BTX	32 4139	
QSL MANAGER	CLIFF BILSTON	VK3 PAF	34 7626	
AWARDS MANAGER	MAURIE BATT	VK3 XEX	42 2245	
PUBLICITY OFFICER	GEOFF SMITH	VK3 KLZ	32 1037	
EDUCATION OFFICER	JIM HUMPHRIES	VK3 ANH	32 1613	32 1719
PROPERTY OFFICER	DICK ANTOSIEWICZ	VK3 AEX	32 3273	32 1818
NEWS LETTER EDITOR	HENRY MORITZ	VK3 DXC	32 7569	30 1800
ASSIST. NEWSLETTER ED.	CLEM JARVIS	VK3 YDI	31 4179	
NET CO-ORDINATOR	CLIFF BILSTON	VK3 PAF	34 7626	
WICEN COMMITTEE •	BILL JOHNSON	VK3 DWJ	40 2288	
	HARRY HEKKEMA	VK3 KGL	35 7563	

B.A.R.G. meets the last FRIDAY of month at the Ballarat Education Centre. Hopetoun St. All correspondence to P.O.BOX 216E.Ballarat East 3350. Victoria. Awards Manager VK3XEX. R S,D. Rokewood Junction . VIC.

Just one more minute...

Minutes of General Meeting held 25th May 1984.

Meeting called to order by President Murray at 7.25pm.

Apologies NIZ, BNC, VZL, DXC, NIL, YMW, NIA, ZL.

Minutes of previous meeting as printed in News Letter confirmed.

Correspondence Notice of A.G.M.of W.I.A.Western Zone at Lake Bolac.

Treasurers Report. General a/c $45.86. VS&L $579.03. Family Fund $167.50.

Q.S.L.Manager 470 cards out-non received from bureaux.

Awards Manager Maurie sent out 4 Goldrush, 3 D.X.Widows & 49 Steam Rally. 162 contacts were made from the Steam Rally.

Publicity 'yes'. A very concise report from Manager Geoff.

Education Jim ANL stated that it is hoped to keep the A.O.C.P.class running up to the August Exam but more instructors are needed.

Property Officer Dick has received the donation of a Cafe-Bar from Neil KQQ, Many thanks Neil.

News Letter Complaints have been received from financial members who are not receiving the News Letter, this is regretted, blame the Computer, and it is hoped that this will be rectified in the new financial year.

General Business. Jim ANL asked the Members feelings on the future of the W.I.A.Western Zone to be brought forward to the Zone A.G.M.It was decided to leave action in Jims hands.

George S.E. asked if Q.S.L.Bureau had improved, no one could give a definite answer.

It was resolved to make station VK3 BNT at the North Technical School an Honarary Member Station and to include them on the News Letter Mailing list.

Notices of Motion for A.G.M. at instigation of your Committee.

SEE ALSO LAST PAGE !!!

1. Change Constitution paragraph 5.1 by;-
Deleting "Beforehand" and changing "shall vacate office" to "may be required to vacate office at the discretion of the committee".

2. Change Constitution paragraph 15.1 by;-
Changing "W.I.A.Western Zone, VicDivision" to "W.I.A.Vic.Division".

Family Fund Raffle was won by Ivor KY, it was a very nice desk mike donated by Brian Stares. Thankyou Brian.

The meeting closed at 7.55pm and the Members were then entertained by an address by Duncan VK3 LZ the manager of ICOM Australia who presented a very fine display of mouth watering equipment. This visit was organised by Brian VK3 ZBS/NVI our local ICOM man, thanks again Brian.

73s Jim VZD.

YOU FORGOT THE BEAUT SUPPER JIM!
—Ed.

84/06 04

FISHERMANS CORNER.....

Well members, the weather has turned cold,and it's time to put the fishing rods away. But it does not mean that you have to stop fishing.

The P.A.R.G. club has one of the best nets around,so get hold of an end and see who we can pull in. We have had fantastic support from some members over the last few years and it is time that a few more called in and gave it a go. If nets are not your thing, give it a thought to call in and tell the net control for the night that you will be on the side for one round, this will lend a hand for our callins,and also give the members the chance to work locals that they have only spoke to at meetings but never worked on air. So we look forward to your call in,if only for one round.

Also,please keep in mind the fact that at the A.G.M you will be electing a new net co-ordinator,so if you think you can do this one let someone know that you would like to nominate for this position.

I will be relinquishing my position as net co-ordinator due to the work load here on the nursery,as work in this trade does not stop after the sun goes down. But I will still give the net my support when able. So once again thanks for your help,and to all those that could call in for a short time,once a mohth please do so and I'm sure it will help sell a heap of awards for the club.

Yours in fellowship
CLIFF.

DO WE WANT IT ??.
I DONT KNOW.
BUT WE CAN IF YOU REALY WANT IT .

A CW net on 28MHZ of an evening,where all can have a go at it. We can all use low power (no TVI) and just maybe we will all be doing 10 or more words a minute in no time. We can have a slow group and a 10 words or more group,or if you wish a slow start and build up to a faster speed. Let us know your thoughts and ideas. 10 meters at night has lots of room,and at low power across town is ok. If you wish to get this off the ground,please contact one of the committee or myself VK3PAF at home on(347626 phone) evenings only.

Cliff VK3PAF.

5 84/06 05

NAME..		
EXISTING CALL & DATE OF ISSUE	PREVIOUS CALL & DATE OF ISSUE	PREVIOUS CALL & DATE OF ISSUE

Could you please fill in the above and return to the Qsl manager as soon as possible.....

.....oooooo.....

1984 AGM 1984 AGM 1984 AGM 1984 AGM 1984 AGM 1984 AGM 1984 AGM 1984

NOMINATING FOR OFFICE ??????????????

Maybe the formbelow will be of assistance.....

Tear here .....

ELECTION of OFFICE BEARERS for 1984/1985. B.A.R.G.

I ..... do nominate .....

for the position of .....

I .....do accept the above nomination ..

Signed .....

84/06 06

84/06 07

THE PRODIGAL'S RETURN

84/06 08

QSL'N

With the bands at an all time low I would be pleased if the members that did not fill in the information sheet in the APRIL issue of B.A.R.G. could spend some of that spare time in filling out the one herewith.This will help with the sorting of cards. For example: Cards for VK3VMO now VK3DXC are a mixed bunch.The call VK3VMO was re-issued to Mike in St ARNAUD ,but Mike has now shifted back to Queensland,and is once again using a VK4 call. And his cards for VMO still come through for DXC EX VMO. Hell's bells where will it all end. It helps no end if they have all the information which should include your first name,as some stations when sending cards do not write the call very clear, V's look like U's and so on. But if they have a name and date to work on it sure helps out in the sorting.

On the grievance side, some still write enough on the back of the card to fill a page of the local rag,PLEASE PLEASE no more than 4 "four" words,as they do not have to send these through as they do not comply with postal rules. And after all you must have said it all when contacting them anyway,if not leave it till the next QSO or you wont have anything to talk about.

On the credit side it is nice to see that most fill in cards with a lot of care,and with the call of the station to whom it is going in the top right hand corner on the back. It should also be noted for our new members,that if a card is altered in anyway,it is of no use for awards etc. So if a mistake is made when filling out a card tear it up and re-write it. I would also hope that our members do not do as some have done to me. Over the past couple of months three cards,blank except for being signed have been sent to me to fill in myself,as they claim that they no longer keep a log, and don't have the details of the contact. As you can understand this could cause people to write in the wrong band etc and claim for awards that they are not entitled to claim. You can lie to others,but you can't lie to yourself. So rip them up and throw them in the rubbish bin .

Once again good DXing and better QSLing.

Cliff Club QSL manager.

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THE LAST AGM
OR
GO WEST OLD MAN

Twenty-two members attended the Western Zone AGM on 25 may. Before the meeting a BARG rep tried to lobby the idea that if the AGM failed to elect a committee then the WIA would have to get on with the proposed dividing of the Zone. This ploy was unsuccessful.

From annual reports we learned

* The Zone has $157-95 less the cost of staging the AGM
* Loss at the Convention was partly due to optimistic estimates of likely numbers, partly a trade group who booked a large number who failed to turn up.
* 2m repeater resited and better in most directiond but not getting into certain areas
* 70 cm repeater being repaired.

Election of committee almost aborted when nobody wanted the secretary/treasurer position complete with empty cash box. However an intrepid volunteer was found. The meeting then proceeded to the matter of dividing the Zone.

After much constructive discussion the decision is

* Committee gather ideas of members then meet 23 June
* General meeting to approve a resumé of pros and cons 7 July
* All members of Zone be polled. The results of the poll to be the basis of a recommendation to WIA

Apart from the previously published division along CFA zone lines a couple of ideas were - zones around repeaters
- zones around clubs

WIA members should be thinking about these things and passing their thoughts along yo Committee members.

— Jim ANH

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WESTERN ZONE COMMITTEE 1984/85

Elected at the recent Western Zone AGM

President	Andrew KHA
Senior VP	Ken KAV
Junior VP	Bill PAL
Secretary/Treasurer	Bill AKW
Committee	KJH ANH ADB DLO BPM
Tech Officer	KAJ
Repeater Committee	BPM AEC KAJ YLV DLO KN
Station Officer	AEU
Intruder Watch	KAV
WICEN	KAV
Zone Rep WIA Club News	KAV

The Ballarat Amateur Radio Group would like to extend their condolences to VK3DXC Henry and also to VK3AEX Dick on their recent sad bereavements.

PEAK ENVELOPE POWER By VK3AXH

For many years amateurs have debated the power relationships of A.M. and S.S.B. transmitters. The purpose of this article is to explain in simple terms these relationships which will hopefully benefit all amateurs. A good starting point is to explain the relationship between maximum power levels of 150 Watts D.C. input for A.M. and 400 Watts P.E.P. output for S.S.B. transmitters as set down by the Post and Telecom Department.

An A.M. transmitter of 150 Watts D.C. input will deliver 100 Watts RMS to a load when 66.6% efficient.

Output Power = Input Power x Efficiency
= 150 x 66.6%
= 100 Watts RMS.

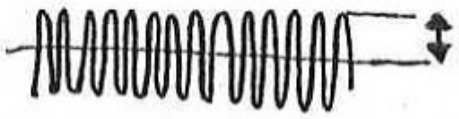
When 100 Watts RMS is dissipated in a 50 ohm load the peak voltage across the load will be 100 volts.

Voltage RMS $= \sqrt{PR}$
$= \sqrt{100 \times 50}$
= 70.7 volts RMS

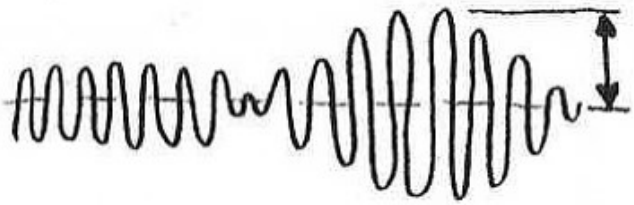
Converting RMS to peak voltage multiply by 1.414
70.7 x 1.414 = 100 volts peak

To cause a 150 watt D.C. input power A.M. transmitter to be 100% modulated requires 75 Watts of audio power. When this action occurs the peak voltage across the load will double at the crest of the modulation envelope. The waveshapes below show the voltages produced.

150 Watts D.C. input, 66.66% efficient, 50 ohm load, unmodulated.



Carrier voltage = 100 peak for 100 Watts in 50 ohms.



Amplitude at crest of mod. cycle is 200 volts peak when modulated 100%.

"P.E.P. is the RMS power measured at the crest of the modulation cycle"
From the previous figures it is now possible to calculate the P.E.P. in the output of the 150 Watt D.C. input powered transmitter modulated 100%.

Convert peak voltage at the crest of the mod. cycle to RMS.

200 x .707= 141.4 volts RMS

Therefore P.E.P. = E^2/R

$$= \frac{141.4 \times 141.4}{50}$$

= 400 watts P.E.P.

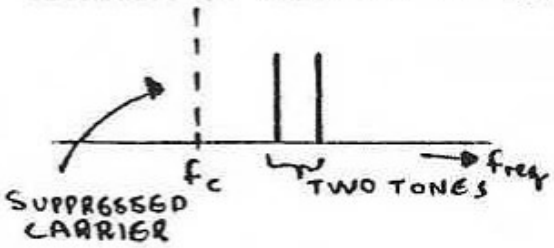
Alternatively using the formula P.E.P. = $E^2/2R$ where E=Peak Voltage at the crest of the mod. cycle will give the same answer.

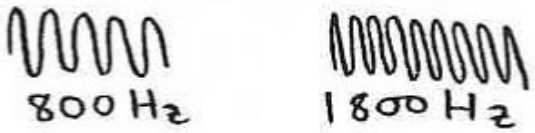
P.E.P. = $E^2/2R$

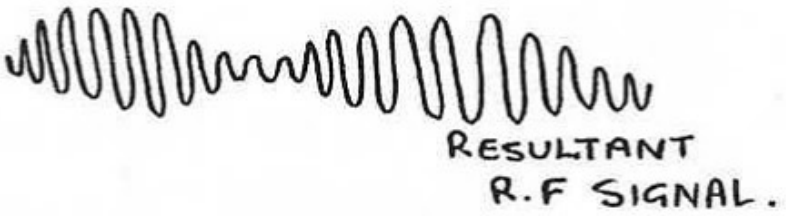
$$= \frac{200 \times 200}{2 \times 50}$$

= 400 Watts P.E.P.

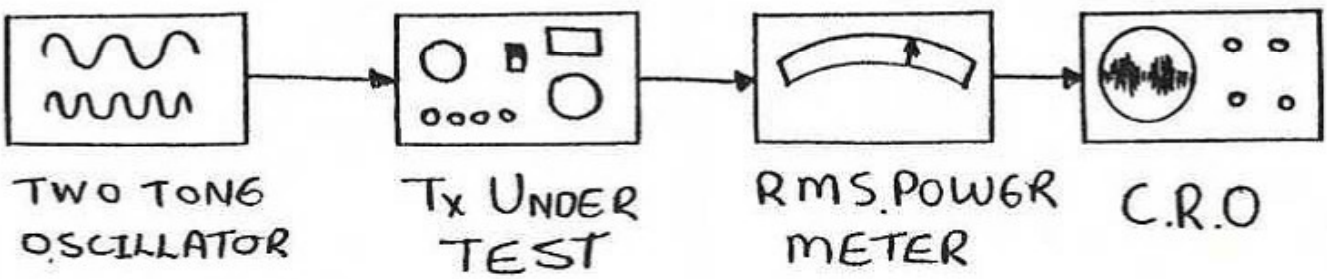
In order to measure the P.E.P. and study the linearity of an SSB transmitter a means must be provided to vary the output level from zero to maximum signal with a regular pattern that is easily understood. The use of two audio tones non-harmonically related of equal amplitude will produce a pattern on an oscilloscope which has the appearance of a carrier, amplitude modulated 100%.







When the two tone test signal is fed into an S.S.B. transmitter the actual watts dissipated in the load are one half the P.E.P. output. The equipment as set up below would give satifactory P.E.P. measurement for the average amateurs requirements.



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Definition of Peak Envelope Power - continued

Measurements to be made as follows:-

Tune the transmitter up in the normal manner into the dummy load.
Switch to one sideband mode and couple the two tone signal to the mike.
Increase the mike gain whilst observing the envelope display on the C.R.O. until non-linearity occurs.
At this point read the power meter and multiply by two to give P.E.P..

You may also confirm your results by measuring the peak voltage on the C.R.O. at the crest of the mod. cycle and using formula praviously quoted:-

$$P.E.P. = \frac{Ep}{2R}$$ Ep = peak volts at crest of mod. cycle.

Whilst this explanation is breif and many points have been omitted to maintain simplicity, sufficient understanding should have been gained to enable amateurs to calculate with reasonable accuracy the P.E.P. output of their SSB transmitters .Amateurs who don't have two tone oscillators may send a tape to me and a sample of suitable tones will be recorded to enable testing to be performed.

This article has been prepared with the aid of the R.S.G.B. Handbook 4thEdition.

73's Ian VK3AXH

Wanted. Receiver, Realistic DX 160. or DX 200. Price and details to VK3BNC.
Receiver, Command, 3 to 6Mhz. details to VK3BNC.

For Sale. Transceiver, FTIOIE Complete with C.W Filter and genuine American Astatic microphone. New finals Details see VK3BNC.

.....

Don't Forget to let Henry know if you want the club 'logo silk screened on your Tee shirt or Skivvy .....

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WICEN NEWS

FOR DISPLAN REGIONS 1 , 15 , 16 .

REGIONAL CONTACTS.....
VK3ADB Geoff Smith
VK3AEX Dick Antosiewicz
VK3VU Dick Forrester

The new organisation of WICEN is as follows....

State Co-ordinator... Derek McNiel VK3BYA
State operations and recources.. Steve Harrington VK3BYI
Mark Stephenson VK3PI
State training ..... Scotty Scott VK3ZR
L. Greaves VK3BGM
Adminstration..... Peter Tyers VK3KTS

STOP PRESS STOP PRESS STOP PRESS STOP PRESS STOP PRESS STOP PRESS STOP PRESS
IT IS OFFICIAL That we have been included in the State Disaster Plan (DISPLAN)
Our primary role is and I quotefrom APPENDIX "AJ" of the updated copy of DISPLAN issued to all Disaster Organisations etc.
The Primary role of WICEN in Victoria is to provide.....
. Radio communications for and between welfare organisations.
. Supplementry and support communications to combatting authorities.
. A service to the community where convential communication facilities are not avaidable.

ON PART OF B.A.R.G AND DISTRICT AMATEURS IT IS OUR ROLE TO.....
a. Establish a full training program on WICEN techniques.
b. Make ourselves known properly to our region authorities SES, POLICE , Etc.
c. MAINTAIN contact with region authorities and other local bodies so that they are informed of any changes at either end.

ACTION TO DATE.....
The regional reps will contact all the local people and issue them with the latest.

PS ..... IF YOU WISH TO REGISTER YOU INTEREST, PLEASE LET YOUR LOCAL REP. KNOW NOW.....

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NOTICE of MOTION for A.G.M. at the instigation of your committee.

INCLUDE in CONSTITUTION:

Para. 5.5.

The committee has the power to establish and maintain "Funds", for special purposes within the club..

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Sales & Service
(053)39 2808

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YAESU
ICOM and others

11 Malmsbury Str. Wendouree 3355--

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Ballarat 10 & 11TH NOV.

HAMVENTION '84

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